



Hood Canal Dissolved Oxygen Program Monthly Update **March 2006**

Next HCDOP meeting

- *When/where*
 - The next meeting will be held at the PSAT Office in Olympia on April 11 from 12:30 pm to 3:30 pm.
- *Proposed agenda items for the next meeting*
 - Status of the N-OSS study (Duane, Dave Christensen, Gary Turney)
 - HC News (Emily Piper, Toni Droscher)
 - HC Forums (Bob Hager)

Scientific Studies

- *Project update*
 - Phytoplankton are blooming in southern Hood Canal and oxygen remains low, at about 2 mg/L at the Sisters Point ORCA mooring. No appreciable changes are noted in the oxygen time-series from the Citizen Monitoring data. Stormwater sampling in the watershed has commenced. (Newton, UW/Hannafious, HCSEG)
 - HCDOP IAM Biota proposals are currently under review from an independent panel of experts, to be completed by April 7. Funding decisions will be presented at the next HCDOP IAM Quarterly Meeting. (Newton, UW/Hannafious, HCSEG)
 - On behalf of the HCDOP IAM study participants, Jan Newton sent a summary report of the HCDOP IAM study, its intent, activity, and results to Governor Gregoire. (Newton, UW/Hannafious, HCSEG)
 - Molluscan Study – HCSEG held an initial meeting to discuss the methodology for the study with selected scientists (HCDOP, UW, WDFW, DNR). The scope of the study is continuing to be refined in order that the information collected is coordinated with other studies. (Newton, UW/Hannafious, HCSEG; Toba, DNR)
 - The next HCDOP IAM Quarterly Meeting is April 25 at APL-UW from 12:30-3:30 pm. (Newton, UW/Hannafious, HCSEG)
 - Mindy Roberts (Ecology) worked with Mike Brett (UW) and Mary Lou Mills (DFW) to develop nutrient loads from hatcheries. Mindy developed the spreadsheet model in 2004 to estimate nitrogen and phosphorus loads for the Deschutes hatchery using nutrient data collected by Rich Eltrich (DFW). Mike and Mary Lou are using the data and estimates to extrapolate to Hood Canal. (Roberts, ECY)
 - Mason County Department of Health Services (MCDHS) is sampling eleven locations for dissolved oxygen and nutrients. MCDHS is also sampling and analyzing the same sites for fecal coliform bacteria levels. MCDHS concluded wet weather ambient monitoring. This does not affect MCDHS special projects

such as Hood Canal shoreline monitoring. We are now thirteen months into the freshwater monitoring component. (Mathews, Mason County)

- The Hood Canal ORCA network is partially leveraged with funds from the UW Oceans and Human Health project. The Pacific Northwest Center for Human Health and Ocean Sciences at the University of Washington focuses on understanding the environmental conditions that trigger blooms of harmful algae in marine waters and ultimately, how these blooms affect public health. Al Devol presented information from the HCDOP at their recent meeting April 3 and will at their national meeting on April 24-25 in Seattle. There was interest in better understanding how human-caused nitrogen input may be stimulating blooms. (Newton, UW/Hannafious, HCSEG)

- *New information generated by projects*

- Barry Berejikian, NOAA, is leading a project to understand the marine movements of steelhead smolts from four river systems in Hood Canal. Big Beef, Snow Creek, Hamma Hamma, and the Skokomish will be the focus for the migration study utilizing acoustic receivers. The receivers have been deployed in the nearshore and estuarine areas as well as mounted to the Hoodsport ORCA mooring and the Hood Canal Bridge. From early April to mid-May, steelhead smolts will be trapped, implanted with acoustic tags, and released in those river systems. The receivers will record their movements for approx. 2 months. (Newton, UW/Hannafious, HCSEG)
- Mike Brett's Civil and Environmental Engineering graduate class "Lake and Watershed Management" presented results of their Hood Canal nitrogen mass balance research projects on March 15 at UW. They worked on three individual components (septics, carcasses, terrestrial/marine inputs to euphotic zone) to characterize the key nitrogen sources to Hood Canal, identify key gaps in the current knowledge base of nitrogen loading to this system and their results were tied into the framework provided by the hydrologic component of PRISM (Puget Sound Regional Synthesis Model) to explore how anthropogenic activities affect Hood Canal water quality through non-point source pollution. (Newton, UW/Hannafious, HCSEG)
- Suzanne Osborne defended her Masters degree in Civil and Environmental Engineering on April 3 at UW. Her research, entitled "Influence of Catchment Characteristics on Stream Nutrient Transport and Hypoxic Conditions in south Hood Canal, Washington," used the HCDOP IAM watershed data, a sampling project that she administered from its start. (Newton, UW/Hannafious, HCSEG)

Corrective Actions

- *Project update*

- Anaerobic Digester Study: Mason Conservation District submitted the final study (a preliminary analysis of key issues and treatment options) to the Action Team in March 2006. Mason CD will conduct additional research to complete the feasibility study and to initiate preliminary design with funding from the Washington Conservation Commission. (Glasoe, PSAT)

- Hoodspport-Skokomish Wastewater Alternatives Analysis: Mason County distributed copies of the draft analysis to interested parties in January 2006. At the request of Mason County, staff from the Hood Canal Coordinating Council have organized a meeting with interested parties to discuss comments on the draft analysis and related issues at a meeting in Olympia on April 6. (Glasoe, PSAT)
- Duane Fagergren arranged an interagency Hood Canal meeting with Mason County's Consultant, O'Neil and Associates related to recommendations and a course of actions for Mason County. (Fagergren, PSAT)
- Duane Fagergren and Terry Hull (PSAT), Dave Christensen (HCCC), and Gary Turney (USGS) developed a process leading to the study design for the \$297K study (through the state's supplemental budget) for an onsite sewerage – nitrogen fate and effects study. (Fagergren, PSAT)
- Duane Fagergren participated in the monthly Hood Canal Coordinating Council meeting in Bremerton, and updated the three county commissions and one tribal council member about supplemental funding expected through this legislative session; explained, along with Dave Christensen, about the \$297 N-OSS study and process for study design. (Fagergren, PSAT, Christensen, HCCC)
- The Hood Canal Pollution Identification and Correction Project (HCPIC) team has been creating a presentation to share at community meetings about best practices for septic system health and maintenance, as well as best practices to keep nutrients from entering surface and groundwaters. The team has also been preparing for a day in the field with Americorps participants to expose them to our projects' intent and methods. Office days include reviewing parcels identified in the WSDOH Shoreline Surveys along Hood Canal for the purpose of performing Sanitary Surveys. To date, we have sampled from Triton Head to Hoodspport, and Alderbrook to Twanoh State Park. We have not sampled from Hoodspport to Union as we intend to perform nutrient sampling in addition to fecal coliform sampling in this area. (Mathews, Mason County)

Outreach

- *Public education and outreach updates*
 - The Federal Executive Board (FEB) Interagency Environmental Leadership Committee (IELC) picked a project to support the HCDOP with labor from our AmeriCorps Team. Ten AmeriCorps volunteers are scheduled to work with the HCDOP program Hood Canal on April 12, 13 and 14. They will help with monitoring, Smolt Traps and a "Students in the Watershed Event." The team will make a video of their work. This video will be combined and edited with other videos they make of the other events during their 4 weeks in Puget Sound. The video will premier in the FEB Earth Day Booth in downtown Seattle on Earth Day 2006, April 22. (Street, US Navy)
 - The first issue of the *Hood Canal E-News* was sent out to nearly 600 subscribers. Overall feedback of the newsletter was very positive and more have subscribed since. The next edition will be due out sometime in mid-June, contact Emily Piper at elpiper@wsu.edu if you have any questions. You may subscribe on the [PSAT Hood Canal Website](#). (Piper, HCWEN)

- Ecology is beginning to move forward on a video for shoreline homeowners around Hood Canal. Markus Von Prause and DouGlas Palenshus (Ecology) came to the HCWEN meeting to gather input and ideas for the movie. They are aiming to produce a film 8-10 minutes long, which would be provided to the public in a variety of ways. For more information contact DouGlas dpal461@ecy.wa.us (Piper, HCWEN)
- Shore Stewards is beginning its second season and partnering with Whitney Gardens in Brinnon to provide more focused outreach on the reducing the amount of fertilizers applied residentially. Shore Stewards will also be focusing outreach on onsite system failure identification and proper maintenance. For more information contact Cammy Mills cammymills@jefferson.wsu.edu (Piper, HCWEN)
- The Community Nearshore Restoration Program will be moving its efforts to the South Shore this spring and summer. One meeting has gotten the program underway which will entail community workshops, beach walks, and individual restoration projects on site. For more information contact Sue Texeria with the Hood Canal Coordinating Council stexeira@hccc.wa.gov (Piper, HCWEN)
- A rain garden will be installed in the Hood Canal area, as part of a rain garden demonstration project (one in Puyallup, one in Thurston Co.). The site will be selected through an application and will be evaluated on the property's visibility, site considerations, and access to the public. For more information please contact Bob Simmons simmons@wsu.edu (Piper, HCWEN)
- Met with the HCWEN group on March 30, to discuss education and communication strategies, and an early summer community forum to be hosted by the LHCWC (Fagergren and Droscher, PSAT)
- Dr. Ellen Lettvin (APL-UW) is submitting a Sea Grant proposal to develop a portable informal science exhibit comparing Puget Sound and Hood Canal. The exhibit will demonstrate physical, biological, chemical and geological processes and the interrelationship between these natural systems and human activities. The exhibit will travel throughout Puget Sound and Hood Canal. Ellen is teaming with Sea Grant Extension, HCWEN, and HCDOP participants to develop the exhibit and strategize the deployment. (Newton, UW/Hannafious, HCSEG)
- The Bremerton Rotary invited Jan Newton to give a lunchtime lecture on March 6 entitled "Hypoxia in Hood Canal: Understanding its causes and what to do about it." There were many questions and good audience interest from this diverse group of civic leaders. (Newton, UW/Hannafious, HCSEG)
- Jan Newton was invited to talk to the BeachKeepers of San Juan County, a group of about 20 adults working closely with the San Juan MRC to promote the Marine Stewardship Area. Though the lecture focused on their local oceanography, she included information about the power of the Hood Canal Citizen Monitoring Program, those volunteers, and the contribution of useful data. (Newton, UW/Hannafious, HCSEG)
- Duane Fagergren gave a presentation to Richard Strickland's (University of Washington) Oceanography class (along with Jan Newton and Dan Hannafious, HCSEG) about corrective action and education projects and challenges we're facing in the Hood Canal. (Fagergren, PSAT)

- *Upcoming meeting notices/speaking engagements*
 - The tenth Annual Students in the Watershed will take place on April 14 from 10am-2: 30 pm at the Tahuya Horse Camp in Tahuya State Forest. (Piper, HCWEN)
 - The second Hood Canal Youth Summit will be on Wednesday May 31 from 8:30-2:30 at Twanoh State Park with around seven schools participating from around the Canal. Karen Lippy is coordinating this event and is looking for volunteer and/or “station presenters.” This event will provide area school classes with the opportunity to share water quality data that they have been gathering over the year from around the canal. For more information please contact Karen at klippy@nmsd.wednet.edu. (Piper, HCWEN)
 - The Lower Hood Canal Watershed Coalition has met once and is meeting again today to discuss having a “Hood Canal Education Forum.” The date has very tentatively been set for Saturday June 24. Topic ideas: update on the HCDOP scientific study, what you can do around your home, and shellfish safety. For more information contact Phil Wiatrack Pwia461@ecy.wa.gov or Bob Hager bphager@msn.com (Piper, HCWEN)
 - The Mason County Environmental Health Dept is holding a workshop for residents on April 13 at the Hoodport Library to provide updates on their sanitary survey work. For more information contact Amy Georgeson 427.9670 x 544 (Piper, HCWEN)
 - Celebrate Hoodport will be held on the July 1 and 2. They have adopted a slightly modified version of the Watershed Pledge Logo to use for the event promotion in attempt to draw more attention to the program. If you are interested in providing a booth contact Frank Benavente at the Port of Hoodport portmail@hctc.com (Piper, HCWEN)
 - HCSEG will be holding Environmental Explorations this year at Belfair State Park. Chris Daniel is looking for volunteers to help out on the day of. The event will host over 900 students and have around 40 presenters focused around the theme of wild salmon ecosystems. For more info, or if you can volunteer please contact chris@hcseg.org
 - The next HCWEN meeting is scheduled for May 25, 1-4pm at the Kitsap SSWM Conference Room. For more information please contact Emily Piper elpiper@wsu.edu (Piper, HCWEN)
- *Comments/questions from public*
 - If anyone would like to receive a copy of the most recent HCWEN minutes please contact Emily Piper elpiper@wsu.edu (Piper, HCWEN)
- *Public outreach needs*
 - At the most recent HCWEN meeting the agenda touched on the need for education on tunicates, which have been found in Pleasant Harbor. In response to this Dan Hannafious will be meeting with Kevin Anderson (PSAT) and others on April 17. (Piper, HCWEN)

Shellfish Areas

- The Department of Health upgraded the classification of the shellfish area at the western portion of Belfair State Park on Hood Canal. The western portion of the park opened April 1 for recreational harvest of oysters for the first time since 1987. Belfair State Park, originally closed for oyster harvest due to elevated levels of bacteria in the marine water, is one of the Puget Sound's leading oyster producing beaches with nearly 1.5 million oysters now available for harvest. The Mason County Department of Health led the collaborative effort to improve water quality that included several community organizations, the Lower Hood Canal Watershed Coalition, the state Department of Health, the Department of Ecology, and the Mason Conservation District. (Avy, DOH)
- Annas Bay Shellfish Protection District/Shellfish Downgrade: MCDHS is drafting a public announcement letter informing residents of the Annas Bay Shellfish Protection District and requesting shoreline residence dye tests of On Site Septic Systems. Seth Book has talked with several residents on site visits and has had interest in Dye testing a possible failing septic system. MCDHS has also continued to work with the Skokomish Tribe on mutual interests such as Annas Bay shellfish closure. (Mathews, Mason County).

Funding

- APL-UW is still awaiting the arrival of the second year of HCDOP IAM funds.

Communications

- *Media coverage*

Newsletter launched on Hood Canal health

The Olympian
April 3, 2006

<http://www.theolympian.com/apps/pbcs.dll/article?AID=/20060403/NEWS05/60403032>

Dead zones might masculinize fish

Science News
March 29, 2006

http://pubs.acs.org/subscribe/journals/esthag-w/2006/mar/science/jp_deadzones.html

Speak out on future of Hood Canal parks

Tacoma News Tribune
March 23, 2006

<http://www.thenewstribune.com/soundlife/story/5609018p-5040264c.html>